

## ABSTRACT

Diagnostic tools for for serodiagnosing ehrlichiosis in mammals, particularly in members of the Canidae family and in humans are provided. The diagnostic tools are a group of outer  
5 membrane proteins of *E. chaffeensis* and variants thereof, referred to hereinafter as the "OMP proteins", a group of outer membrane proteins of *E. canis* and variants thereof referred to hereinafter as the "P30F proteins", and antibodies to the OMP proteins and the P30F proteins. The OMP proteins of *E. chaffeensis* encompass OMP-1, OMP-1A, OMP-1B, OMP-1C, OMP-1D, OMP-1E, OMP-1F, OMP-1H, OMP-1R, OMP-1S, OMP-1T, OMP-1U, OMP-1V, OMP-1W,  
10 OMP-1X, OMP-1Y and OMP-1Z. The P30F proteins of *E. canis* encompass P30, P30a, P30-1, P30-2, P30-3, P30-4, P30-5, P30-6, P30-7, P30-8, P30-9, P30-10, P30-11, and P30-12. Isolated polynucleotides that encode the *E. chaffeensis* OMP proteins and isolated polynucleotides that encode the *E. canis* P30F protein are also provided. The present invention also relates to kits containing reagents for diagnosing human ehrlichiosis and canine ehrlichiosis, and to  
15 immunogenic compositions containing one or more OMP proteins or P30F proteins.